The background of the entire page is a vibrant green with a dense, repeating pattern of small white dots. Overlaid on this background are several white wind turbines. The most prominent turbine is in the foreground, angled towards the right, with its three blades clearly visible. Behind it and to the left, another turbine is partially visible, and further back, a third one can be seen. The turbines are white, contrasting sharply with the green dotted background.

Report of the Governor's Task Force on Energy Efficiency & Renewables

Submitted to
Governor Jim Doyle
October 2004

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Executive Order #25

Relating to the Creation of The Governor's Task Force on Energy Efficiency and Renewables

WHEREAS, supplying reliable electric energy at reasonable rates with as little impact on the environment as practicable is a key to fueling Wisconsin's economic development; and

WHEREAS, at a time when Wisconsin needs to build additional generation and transmission facilities, energy conservation and renewable resources are equally important components to a sound energy policy because by increasing electric efficiency and renewable energy sources Wisconsin can reduce the need to build power plants and transmission lines, while reducing emissions and limiting impacts to our air, water and land; and

WHEREAS, Wisconsin's energy priority statute lists cost-effective and technically feasible energy efficiency and renewable energy alternatives as the top two priorities guiding Wisconsin's energy policy decisions; and

WHEREAS, Wisconsin has a proud tradition as a national leader in energy conservation and generating electricity from renewable energy sources with programs like time-of-day rates and utility conservation escrows, progressive institutions such as the Wisconsin Energy Conservation Corporation and as one of 16 states with a renewable portfolio standard; and

WHEREAS, efficient use of energy has been proven to reduce reliance on fossil fuels, which Wisconsin pays over \$6 billion to import into the state each year, and energy efficiency efforts also lower ratepayers' electric and heating bills; and

WHEREAS, the cost of wind power has decreased substantially and Wisconsin is rich in renewable energy fuel sources like biomass, making it the time to develop these renewable resources and other cutting-edge renewable energy technologies.

NOW, THEREFORE, I, JIM DOYLE, Governor of the State of Wisconsin by the authority vested in me by the Constitution and the Laws of this State, and specifically by Wis. Stat. § 14.019, do hereby:

1. Create the Governor's Task Force on Energy Efficiency and Renewables (the "Task Force"); and
2. Provide that the Task Force shall consist of members who are leaders from the energy sector with experience and expertise in the energy field, appointed by the Governor to serve at the pleasure of the Governor; and

-
3. Provide that the Governor shall designate one member of the Task Force as chairperson to serve in that capacity at the pleasure of the Governor; and
 4. Provide that the Task Force shall have the following mission:

To advise the Governor on creative, consensus policy options and practical business initiatives to restore Wisconsin as a leader in energy efficiency and renewable energy sources, relying upon cooperation among the stakeholders in the energy industry with the goal of reducing Wisconsin's dependence on out-of-state energy and helping to save ratepayers money; and
 5. Require the Task Force to provide ongoing reports to the Public Service Commission Chairperson; and
 6. Direct the Department of Administration, the Public Service Commission, and other state agencies to assist the Task Force with administrative and support services; and
 7. Direct the Department of Administration to provide the Task Force with such sums of money as are necessary for travel and operating expenses in accordance with Wis. Stat. § 20.505(4)(ba); and
 8. Provide that the Task Force shall dissolve when the Governor accepts the Task Force's final report.

IN TESTIMONY WHEREOF, I have hereunto set my hand and caused the Great Seal of the State of Wisconsin to be affixed. Done at the Capitol in the City of Madison this thirtieth day of September in the year two thousand three.

JIM DOYLE
Governor
By the Governor:

/s/ Jim Doyle

/s/ Douglas La Follette

DOUGLAS LA FOLLETTE
Secretary of State



TASK FORCE MEMBERS

LEE CULLEN, Cullen Weston Pines & Bach LLP, Chair

NINO AMATO, Wisconsin Industrial Energy Group

REP. SPENCER BLACK, D-Madison

JAMES BOULLION, Associated General Contractors of Wisconsin

FORREST CEEL, IBEW Local 2150

SEN. ROBERT COWLES, R-Green Bay

GEORGE EDGAR, Wisconsin Energy Conservation Corporation

KRISTINE EUCLIDE, Madison Gas & Electric Company

DAVID HELBACH, Alliant Energy Corporation

CHARLES HIGLEY, Citizens Utility Board

REP. SCOTT JENSEN, R-Waukesha

DOUGLAS JOHNSON, Wisconsin Merchants Federation

CHARLES MCGINNIS, Johnson Controls, Inc.

THOMAS MEINZ, SR., Wisconsin Public Service Corporation

DONALD RECK, Xcel Energy

KEITH REOPELLE, State Environmental Leadership Program

SEN. FRED RISSER, D-Madison

BRIAN RUDE, Dairyland Power Cooperative

LARRY SALUSTRO, Wisconsin Energy Corporation

RANDY SCHNEIDER, Monroe Equipment

DANIEL SCHOOFF, Wisconsin Dept. of Administration

DAVID SIMON, Veridian Homes

ROY THILLY, Wisconsin Public Power Inc.

MICHAEL VICKERMAN, RENEW Wisconsin

MARK WILLIAMSON, American Transmission Company

EXECUTIVE SUMMARY

On September 30, 2003 Governor Jim Doyle created the Task Force on Energy Efficiency and Renewables with the goal of restoring Wisconsin's leadership in conservation and renewable energy. He charged the Task Force with developing creative, consensus-based initiatives for these two key energy resources. These initiatives should foster the state's economic growth, decrease Wisconsin's dependence on out-of-state energy, and reduce the adverse environmental impacts from fossil-fuel power plants.

The Task Force's recommendations offer new options for the Public Service Commission of Wisconsin's (PSCW) implementation of the Energy Priorities Law.¹ This law establishes a flexible hierarchy for pursuing various energy-resource options, with technically feasible, cost-effective energy efficiency and renewables as the first and second priorities. However, the criteria for determining compliance with the law have not been clear, resulting in uncertainty for the state's utilities and frustration for the state's consumer and environmental groups. The Task Force's recommendations seek to both increase energy efficiency and renewable energy use in Wisconsin and to establish more regulatory certainty in the implementation of the Energy Priorities Law.

Recommendations to Increase Energy Efficiency in Wisconsin

- Reform the structure of the statewide energy-efficiency program known as Public Benefits (also known as Focus on Energy)². The Public Service Commission of Wisconsin (PSCW) would set funding levels and energy-efficiency targets for the program while the Department of Administration (DOA) would continue to oversee the daily administration of the program and allocation of its funds. A cooperative agreement would be established between the PSCW and DOA to define specific responsibilities.
- At least annually notify customers of the benefits and costs of Public Benefits and any utility-administered programs that impact them.
- Better integrate Public Benefits efforts with the application of the Energy Priorities Law and the PSCW's Strategic Energy Assessment.
- Update and improve the state's commercial energy codes.
- Establish either a goal or requirement for state agencies to establish "beyond code" energy-efficiency policies for new and existing state facilities. Also require state agencies to purchase energy-efficient products and appliances.

¹ Sec. 196.025(1), Stats.

² See, generally, Sec. 16.957, Stats.



Recommendations to Increase Renewable Energy Use in Wisconsin

- Establish a new standard for renewable energy use in the state, averaging 10% statewide by 2015. This new standard would be phased-in and would allow electric utilities to request temporary implementation delays from the Public Service Commission for circumstances beyond their control. The new standard would also be better integrated with the application of the Energy Priorities Law and the Strategic Energy Assessment.
- Establish a target for state agencies to purchase at least 10% of their electricity from renewable resources by 2006 and at least 20% by 2010.
- Create a sales and use tax exemption for customer-owned renewable energy systems such as small wind turbines, solar panels and solar water-heating services.
- Encourage the research and development of renewable energy systems, particularly anaerobic digestors, in rural Wisconsin. Recommendations include creating a bio-energy/bio-fuel coordinator position at the Department of Agriculture, Trade and Consumer Protection and targeted funding for anaerobic digester research and development.

The Task Force notes that this is not a comprehensive list of the available energy-efficiency and renewables measures. Other beneficial steps might include improved rate structures, better load management and demand-response efforts, community wind projects, and improved resource-selection procedures. While these other efforts should be examined, the Task Force, given its limited timeframe, chose to focus on the recommendations described in this Report.

The Task Force reached a consensus on all the initiatives proposed in this Report. Given the diversity of interests among Task Force members, the value of this consensus is significant. The Task Force believes that implementation of these recommendations as a package would establish a clear, comprehensive policy for increased energy efficiency and renewable energy use in Wisconsin and would define what constitutes compliance with the Energy Priorities Law. The time is ripe for these policy initiatives. The Task Force stands ready to assist the Governor and policymakers in any way it can to facilitate the implementation of these recommendations.

CHAPTER 1

Introduction

Energy policy is often likened to a three-legged stool – all the legs must work together to support the stool. For energy policy, the three legs are generation, transmission and energy conservation. We depend upon our power plants, wind farms, high-voltage transmission lines and energy-efficiency programs to provide a balanced approach to meeting our energy needs. Remove one aspect and the balance tips.

On September 30, 2003 Governor Jim Doyle created the Task Force on Energy Efficiency and Renewables with the goal of restoring Wisconsin's leadership in conservation and renewable energy. Recognizing that Wisconsin faces a major construction program to improve its system of power plants and transmission lines, Governor Doyle initiated this Task Force so as to ensure that Wisconsin's energy solutions remain in balance. He charged the Task Force with developing creative, consensus-based policies to advance energy efficiency and renewable energy. These measures should foster the state's economic growth, reduce Wisconsin's dependence on out-of-state energy, reduce the need for fossil-fuel power plants and high-voltage transmission lines, and protect Wisconsin's natural resources.

The Governor appointed twenty-five members to the Task Force, selecting them for their experience and expertise in the energy field. These twenty-five members included urban and rural, business and environmental, and consumer and labor representatives, as well as legislators from both major parties; Governor Doyle ensured that the Task Force was diverse and bipartisan. The depth of experience and breadth of perspective among Task Force members led to thoughtful discussions during the Task Force's deliberations and improved the balance of the Task Force's final recommendations contained in this report.

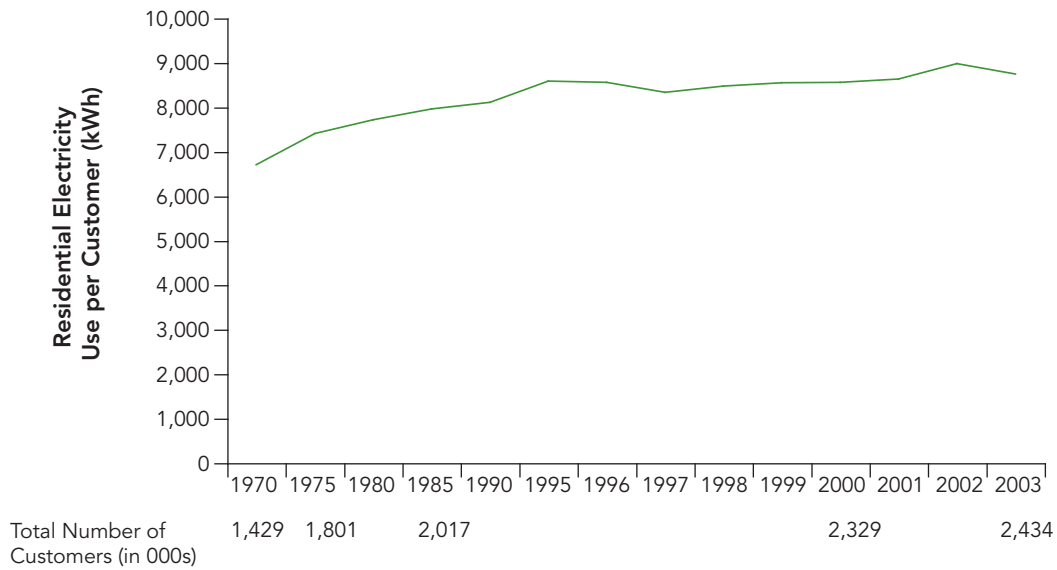
The Reason Why Energy Efficiency and Renewable Energy Are Important

Over the past five decades, electricity has increasingly become a necessity for the smooth functioning of our modern society. In Wisconsin alone, not only has the number of electric consumers increased over the past few decades but per capita consumption of electricity has also grown as we have added more computers and electronics to our homes and workplaces (see figures #1 and #2). In recent years, Wisconsin's need for electricity has been growing at approximately 2.5%³ per year.

³ Public Service Commission of Wisconsin. Draft Strategic Energy Assessment – Energy 2010. April 15, 2004, Docket No. 05-ES-102, pg. 3.

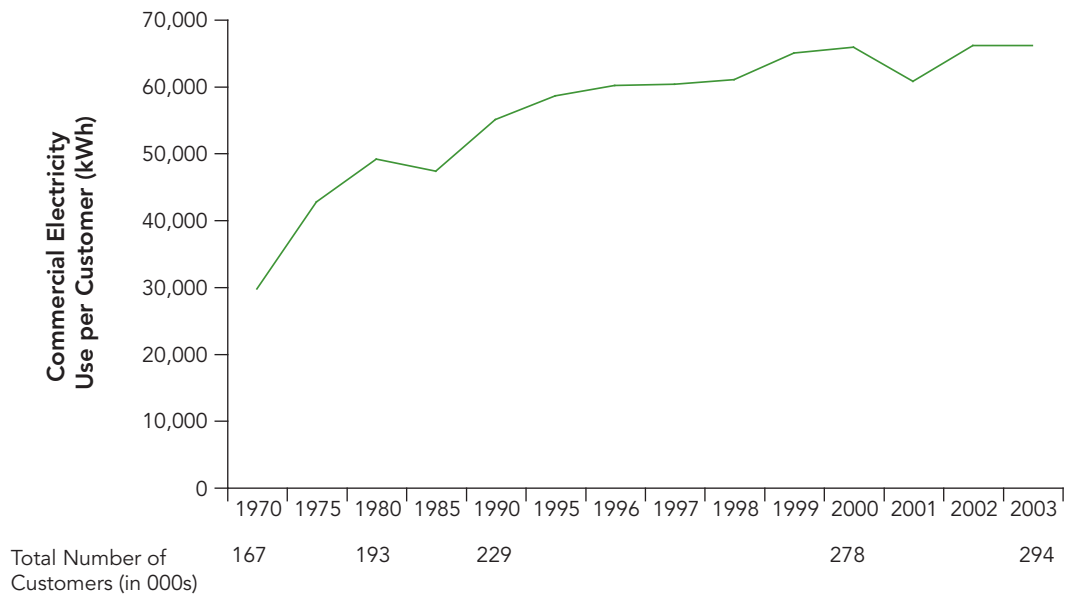


FIGURE #1: Residential Electricity Use



Source: 2003 Wisconsin Energy Statistics, 2004 Preliminary Wisconsin Energy Statistics

FIGURE #2: Commercial Electricity Use



Source: 2003 Wisconsin Energy Statistics, 2004 Preliminary Wisconsin Energy Statistics

Natural gas is also extensively used in Wisconsin, both for heating and as a fuel for electrical generation. The price of natural gas is historically volatile and has recently been on the increase. This has had a substantial impact on Wisconsin customers, from low-income families to large manufacturers.

This dependence upon electricity and natural gas and its toll of rising utility bills and environmental impacts prompted the state to review its approach to energy use in the early 1990s. In 1993, the state enacted the Energy Priorities Law, Wis. Stat. 1.12(4), laying out a flexible hierarchy for pursuing different energy-resource options in the state. It states:

In meeting energy demands, the policy of the state is that, to the extent cost-effective and technically feasible, options be considered based on the following priorities, in the order listed:

- (a) Energy conservation and efficiency.
- (b) Noncombustible renewable energy sources.
- (c) Combustible renewable energy sources.
- (d) Nonrenewable combustible energy sources, in the order listed:
 - 1. Natural gas.
 - 2. Oil or coal with a sulphur content of less than 1%.
 - 3. All other carbon-based fuels.

While this law sets the strategic direction for the state, firmly implanting energy efficiency and renewables as the state's top energy priorities, it does not offer a ready-made prescription for implementing the law.

Wis. Stat. 196.025(1) specifically applies the Energy Priorities Law to the duties of the Public Service Commission of Wisconsin (PSCW) as it regulates the state's gas and electric utilities. In practice today, the PSCW addresses the Energy Priorities Law in an ad hoc manner through individual construction cases and biennial rate cases. Many stakeholders believe that a more comprehensive, consistent basis on which to apply the Energy Priorities Law can and ought to be developed.

Cognizant of this issue, the Task Force came together to develop new options for implementing the Energy Priorities Law. Early on in the Task Force's deliberations, it became clear that the state's customer and environmental groups seek a stronger enforcement of the intent of the law, and the state's gas and electricity providers seek more regulatory certainty in the application of the law. The Task Force's discussions thus evolved into a compromise – that of increasing efforts in both energy efficiency and renewable energy use and establishing more regulatory certainty in the implementation of the Energy Priorities Law.



With this compromise in sight, the Task Force developed four goals to guide its work. First, to rationalize the process for the statewide energy-efficiency program, known as Public Benefits, and secure the funding. Second, to establish a reasonable renewable energy goal beyond the state's existing renewable portfolio standard, Wis. Stat. 196.378. Third, to strengthen the state's energy building codes and standards. And fourth, to review the state's approach to energy efficiency and renewables as a large consumer of energy. Underlying all of these endeavors was the overarching priority to produce real-world results consistent with the intent of the Energy Priorities Law.

Task Force Procedure

Chaired by Lee Cullen, attorney from Cullen Weston Pines & Bach LLP, the Task Force set to work in November. The group identified four areas of concentration and broke down into workgroups to begin the task of developing consensus policy:

Administrative Model and Funding Workgroup

Co-chaired by George Edgar, Wisconsin Energy Conservation Corporation, and Kristine Euclide, Madison Gas & Electric Company, this workgroup's charge was to review the current Public Benefits framework and statutory requirements of 1999 Wisconsin Act 9, the act that created Public Benefits, with the intent of strengthening Wisconsin's energy-efficiency efforts.

Other workgroup members: Sen. Rob Cowles, R-Green Bay; Nino Amato, Wisconsin Coalition of Energy Consumers; David Helbach, Alliant Energy Corporation; Charles McGinnis, Johnson Controls; Larry Salustro, Wisconsin Energy Corporation; and Roy Thilly, Wisconsin Public Power, Inc. Dan Schooff, DOA Energy Division Administrator, also joined this workgroup after his appointment in July.

Renewables Workgroup

Co-chaired by Don Reck, Xcel Energy, and Michael Vickerman, RENEW Wisconsin, this workgroup's charge was to foster the state's use of renewable energy. The workgroup's discussion largely focused on the development of a successor renewable portfolio standard (RPS). Wisconsin's current RPS, Wis. Stat. 196.378, requires utilities to provide 2.2% of their retail electric sales from renewable energy by 2011.

Other workgroup members: Rep. Spencer Black, D-Madison; Mark Williamson, American Transmission Company; and Charlie Higley, Citizens Utility Board.

Regulatory and Policy Initiatives Workgroup

Chaired by Brian Rude, Dairyland Power Cooperative, this workgroup was initially created to review short-term legislative proposals before the close of the 2003-04 legislative session. With the end of the session, the workgroup continued to refine several proposals including increased purchases of renewable energy by the state. The workgroup also considered an additional component related to rural energy initiatives.

Other workgroup members: Rep. Scott Jensen, R-Waukesha; Forrest Ceel, International Brotherhood of Electrical Workers Local 2150; Tom Mainz, Wisconsin Public Service Corporation; and Keith Reopelle, State Environmental Leadership Program.

Building Codes and Standards Workgroup

Chaired by Jim Boullion, Associated General Contractors of Wisconsin, this workgroup's charge was to identify energy-efficiency opportunities in state energy codes and building and appliance standards.

Other workgroup members: Sen. Fred Risser, D-Madison; Doug Johnson, Wisconsin Merchants Federation; Randy Schneider, Monroe Equipment; and David Simon, Veridian Homes.

Public Meetings and Hearings

In addition to monthly full Task Force meetings, each of these workgroups met regularly through the fall of 2003 into the summer of 2004. These meetings began as educational endeavors for workgroup members to better understand the current state of Wisconsin's energy-efficiency and renewable programs and later evolved into proposals and dialogue to develop consensus solutions for the future of these programs. All of these meetings were open to the public and comments from involved citizens were recognized during each workgroup meeting. Meeting materials and documents developed by the Task Force during the course of these discussions can be found at <http://energytaskforce.wi.gov>.

The full Task Force also held a public hearing on June 15, 2004, inviting comments from concerned citizens. Task Force members chaired meetings at four locations across the state, Madison, Milwaukee, Green Bay and Eau Claire, and conducted a joint hearing using videocast technology. Task Force members heard from over fifty speakers that day and received over two hundred written statements and emails. Public comments were incorporated into the appropriate workgroup's discussion and taken into consideration as final recommendations emerged.



The results of this process are the following recommendations, which the Task Force recommends unanimously. Given the diversity of interests among the Task Force members, these recommendations were arrived at through creative compromise and careful consensus building. The value of this consensus is significant. Historically, several of the organizations represented on the Task Force have been adversaries in legislative, regulatory and judicial proceedings. Yet they were able on this Task Force to forge compromises as urged by the Governor to restore Wisconsin's leadership on energy efficiency and renewable energy use. With this consensus, the Task Force presents the following recommendations to the Governor and other policymakers for their consideration.

CHAPTER 2

The Public Benefits Program

Energy efficiency is a complement to energy supply that can help the state meet important policy objectives. It can help mitigate the need for new supply resources and infrastructure, improve the environment and increase our quality of life. It can also increase the competitiveness of Wisconsin's businesses and the vitality of Wisconsin's economy while reducing the energy burdens on Wisconsin's residents, especially our lower income families.

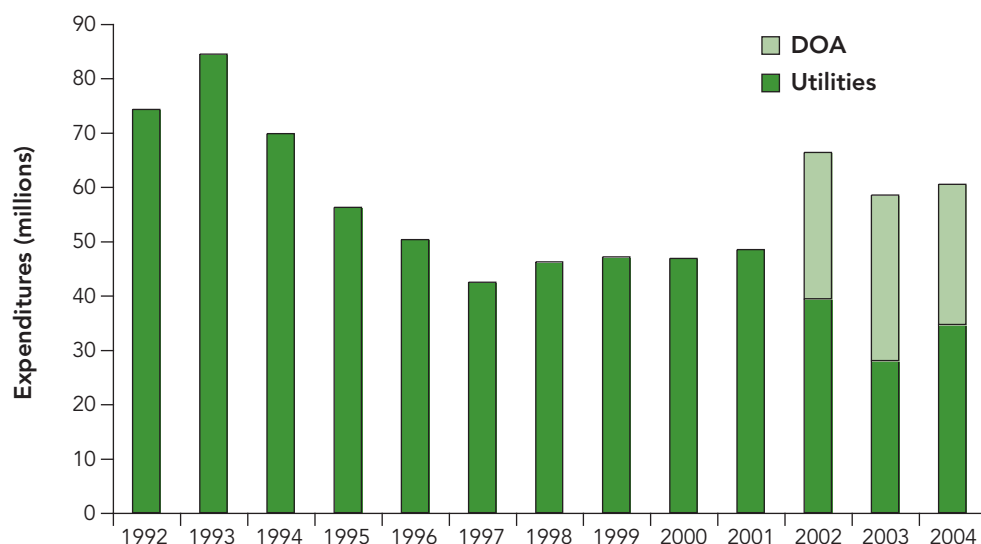
The Public Benefits Program

1999 Wisconsin Act 9, together with the Energy Priorities Law, established the existing framework for the Public Benefits program in Wisconsin (Act 9 is codified as Wis. Stat. 16.957). Act 9 was developed at a time when there was limited experience in both Wisconsin and other jurisdictions about the best option for an ongoing energy-efficiency framework. Prior to Act 9, electricity providers in the state independently administered energy-efficiency programs; since Act 9, Wisconsin's Department of Administration has administered the statewide Public Benefits program for energy-efficiency efforts. Spending levels and energy savings prior to and since the enactment of Act 9 are illustrated in figures #3 and #4.

The Task Force sought to identify which changes to Act 9 are appropriate to improve current and future energy-efficiency efforts. The Task Force's analysis considered the public comments from the June 15th public hearings in which a variety of Wisconsin citizens provided valuable input for our review (e.g. the establishment of clear targets and objectives to ensure value and accountability, the need for increased overall administrative efficiency, the need to better establish Public Benefits funding in relation to achievable energy-efficiency potential in the state, and the importance of consistently maintaining adequate Public Benefits funding levels so as to properly support the efforts of various market providers). Our recommendations, while not always adopting the specific approach proposed in a public comment, set forth improvements to Act 9 that would achieve the purpose of an improved energy-efficiency effort that underlies the public comments received.



FIGURE #3: Energy Efficiency Expenditures

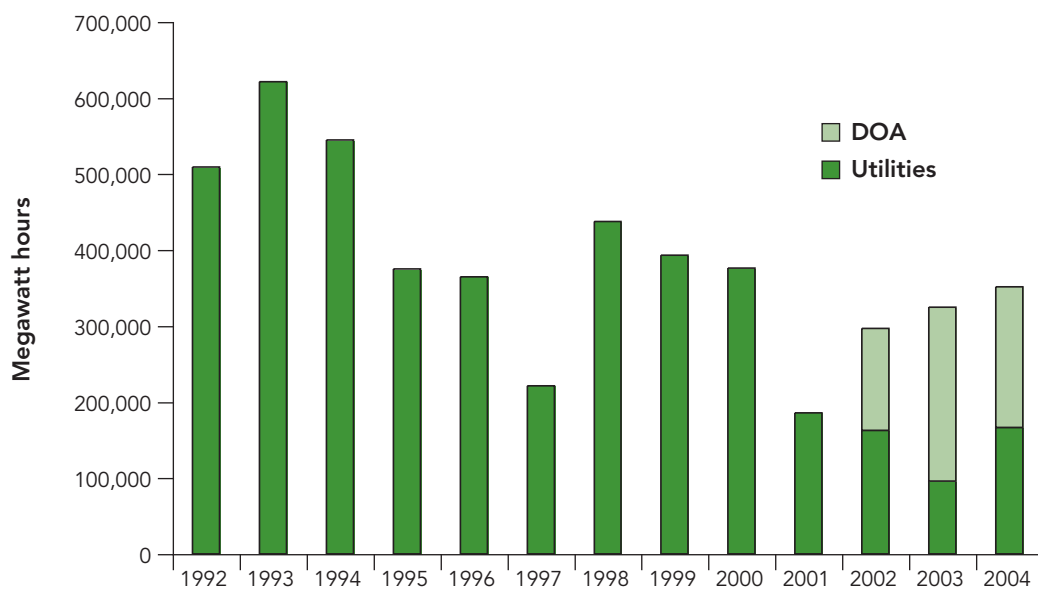


Source: Public Service Commission of Wisconsin

Note:

1. These are expenditures for energy efficiency in the use of electricity only, and not natural gas.
2. These expenditures do not include utility or DOA expenditures for low-income weatherization.
3. DOA expenditures reflect budget cuts from the 2003-2005 budget.

FIGURE #4: Annual Energy Savings



Source: Public Service Commission of Wisconsin

Proposed Framework

In recommending changes to the Act 9 framework, the Task Force determined that four key policy goals must be achieved:

- (1) the Public Benefits effort should be readily transparent and accountable to the public so that the value of the initiative can be easily assessed;
- (2) the PSCW should play a key role in setting the appropriate funding level for energy-efficiency efforts to meet the public benefits objectives set forth in Act 9;
- (3) the Department of Administration (DOA) should continue to be the overall administrator of these Public Benefits programs and a detailed cooperative agreement should be established to coordinate the roles of the PSCW and DOA; and
- (4) consistent funding should be secured to enable long-term program planning and stable implementation efforts with market providers.

We recommend the following role for the PSCW under this new framework (see figures #5 and #6):

1. It should every four or five years (i.e. a time most consistent with the Strategic Energy Assessment process) hold public hearings that incorporate the state's energy needs from its Strategic Energy Assessment, evaluate the potential for energy efficiency, and establish overall savings and other qualitative and quantitative statewide targets for ratepayer-funded energy efficiency and Public Benefits efforts. The Commission should establish by order a specific amount to be included in utility revenue requirements that is adequate to achieve the Public Benefits targets and objectives. To assist in making these decisions, the PSCW should ensure that up-to-date energy-efficiency potential studies and information are available for its consideration in all major market sectors: residential, commercial, agricultural and industrial.⁴ These periodically updated potential studies would aid in the determination of priority goals, targets, and measures of success. The PSCW would also decide what is “cost-effective” (e.g. the societal cost test currently used by DOA) and consider other relevant factors such as potential rate impacts or “lost opportunities” in setting adequate budget levels.

⁴The Task Force agreed that an energy-efficiency potential study should be conducted and, in cooperation with the PSCW, requested the Energy Center of Wisconsin to commence work on such a study. For a description of this study, see Appendix 1.



FIGURE #5: Current Public Benefits Structure

**Overall
Administrator:**

DOA

- Sets goals and objectives for Public Benefits program
- Oversees program administration
- Oversees direct support services: marketing, measurement & evaluation, fiscal agent
- Determines budget allocations to program administrators
- Oversees low-income program

**Program
Administrator:**

Residential
Programs

Business
Programs

Renewable
Programs

Environmental
R&D Programs

- Implement program goals
- Select and oversee contractors
- Report progress to DOA

**Program
Implementor:**

Contractor

Contractor

Contractor

Contractor

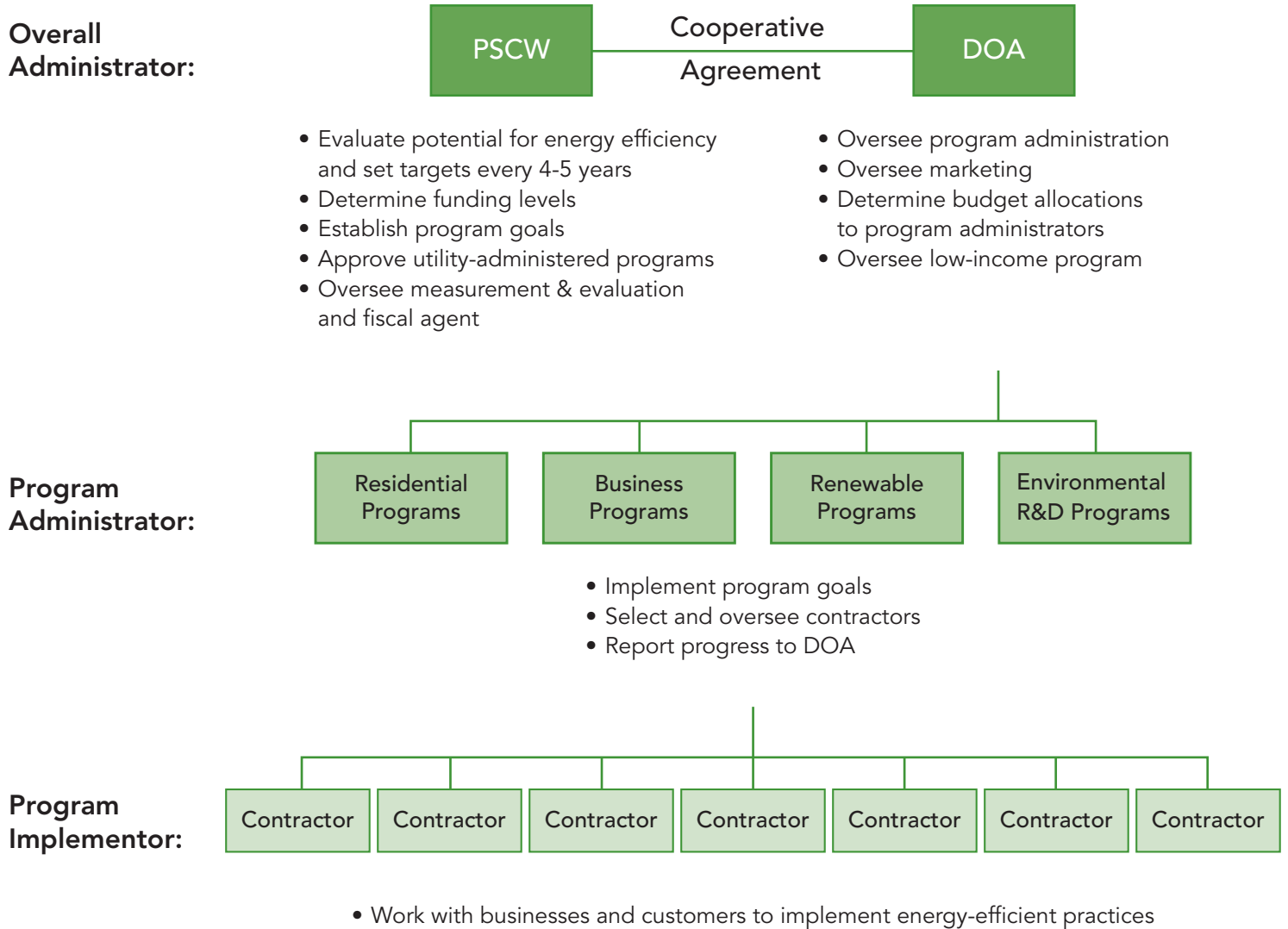
Contractor

Contractor

Contractor

- Work with businesses and customers to implement energy-efficient practices

FIGURE #6: Proposed Public Benefits Structure



In addition, the PSCW would establish in its order priority areas for Public Benefits efforts (including statutory priority areas), determine equitable funding amounts to recover the cost of Public Benefits efforts, prescribe the statewide efforts appropriate in the larger commercial (including agricultural and institutional) sector and in the industrial sector that should be administered by the Business Programs administrator, and clarify the relative general balance of various program strategies such as market transformation and resource acquisition. However, we recommend that the PSCW not attempt to develop specific budget allocations, program designs or implementation strategies, but rather leave such efforts to the program administrators, subject to coordination with DOA as the overall administrator.

Finally, as part of this proceeding, the PSCW would consider utility requests to retain some portion of their funds to administer programs in their service territories for larger commercial (including institutional and agricultural) customers and/or industrial customers. A utility must make such a request as part of this proceeding or else must wait at least one year after such proceeding to provide a one-year notice of intent to seek the ability to retain funds for a larger customer program. This is necessary to provide some certainty to the level and scope of Public Benefits funding over the period. The Commission would also consider whether and how to incorporate outstanding Commission orders, if any, for individual utility programs.

The Task Force has assumed that changes in cost levels as a result of these proceedings, or other proceedings in-between, would be addressed through the use of the existing conservation escrow accounts. Escrowed dollars can be sought to be recovered in rates in a utility's next rate proceeding.

2. The budget costs identified by the PSCW should be embedded for recovery in the utility revenue requirement as are the costs for other resources like power plants. Because this is intended to be a comprehensive statewide effort, these overall budget costs should be equitably divided among the utility customers so that similarly situated utilities and their customers are contributing the same amount toward the Public Benefits effort. For example, to ensure funding equity, residential customers of Utility A should contribute the same average amount as the residential customers of Utility B. The Commission should determine the appropriate level of funding to be assessed to different customer classes, but all utility customers within a given classification should pay a uniform fixed amount towards Public Benefits efforts. We believe these are important improvements to the funding method set forth in the current Act 9.

The Task Force also believes that once Public Benefits funding is made secure due to appropriate statutory changes, the current limitations on the manner of recovery of these costs in Act 9 should be re-examined (Wis. Stat.

16.957(4)(c)3.). These limitations could be modified to accommodate funding equity and to mitigate some of the administrative costs and problems that general caps create.

3. To ensure transparency and accountability, benefit and cost information should be provided to utility customers periodically (e.g. every twelve months) so that customers can compare the costs they pay to the benefits that Public Benefits funds produce. We believe that providing benefit and cost information (including the monthly or annual amount paid by a customer and the net present value, NPV, of the cost-effectiveness of Public Benefits efforts) at the same time better allows customers to assess the value of Public Benefits efforts. We view this requirement as an improvement to the current requirement in Act 9. It is essential to the effectiveness of ongoing efforts that those who are funding the program have the opportunity to perceive the value of those efforts. This comparison of benefits and costs also provides a better basis for citizens to suggest improvements to Public Benefits efforts. We also recommend that the PSCW use its periodic SEA public hearings (among other public hearing opportunities) to provide a forum for customers to provide feedback on Public Benefits efforts and input into program offerings.
4. The Commission will determine which, if any, portion of this overall Public Benefits amount may be retained by electric providers for use in utility-administered programs for larger commercial customers (including agricultural and institutional) and/or for industrial customers. This determination will be based on established criteria and will respond to voluntary proposals by individual providers. Any such retained program should have specific savings targets as well as other performance goals established by the PSCW and should be subject to the same requirements for program transparency, accountability and independent, third-party measurement and evaluation criteria as Public Benefits efforts. A utility with an approved retained program shall be directly accountable to the PSCW.
5. The Commission also has the duty to interpret and apply the Energy Priorities Law, where cost-effective and technically feasible energy efficiency is the first priority. We believe that it is imperative that the Public Benefits initiative be more closely integrated with the application of the Energy Priorities Law. The adequacy of funding and effectiveness of energy-efficiency efforts are essential to ensuring that the first-priority status of cost-effective, technically feasible energy efficiency is satisfied in practice. It is thus indispensable to ensure the security of the funding level, as set by the Commission, and to protect these funds from diversion if the purposes of Public Benefits and the Energy Priorities Law are to be met.



There are two basic requirements for improving funding security for Public Benefits. First, the adoption of increased structural protections to protect the funds such as an independent fiscal agent or a strengthened trust fund. Second, a successful, transparent and accountable Public Benefits program whose value is easily perceived and supported by the public and by public officials. Absent strong support for the program, any structural reforms to protect Public Benefits can be undone. Therefore, it is crucial that adequate levels of funding actually be available to allow the Public Benefits program to demonstrate its value (including, if not especially, during its formative years). There is general agreement that it is in the public interest not to reduce the level of funds below that set by the PSCW to ensure attaining valuable public benefits over time.

The PSCW would in effect be identifying the achievable energy-efficiency potential required for the forthcoming 4-5 year period to satisfy Public Benefits objectives, including the Energy Priorities Law. The PSCW would also establish funding levels and overall targets and objectives to achieve that potential in these periodic hearings. This is an important improvement of Act 9, which severed the requirements of the Energy Priorities Law from Public Benefits efforts.

6. The DOA should continue to be the overall administrator of the day-to-day activities for Public Benefits efforts. Through a cooperative agreement with the PSCW pursuant to Wis. Stat. 20.901(1), the DOA should continue to oversee the selection and activities of independent program administrators as set forth in Act 9. The cooperative agreement would set forth in detail the specific responsibilities of the PSCW and the DOA. Joint responsibilities would include, for example: 1) allocation of funds among program administrators; 2) establishing consistency between Commission-regulated programs and DOA-administered programs; and 3) approving the reports of the independent evaluator regarding measurement and evaluation of results.
7. The Task Force recommends a change in the Energy Priorities Law if the funding-change recommendations in this Report are adopted. If future Public Benefits funds are made secure from potential diversion, then we recommend that compliance with the Energy Priorities Law with respect to customer-side energy efficiency would be satisfied by a utility collecting and making available for Public Benefits activities the appropriate sum established by the PSCW. If future Public Benefits funds are not made secure from diversion, then we agree that if a utility collects and makes available the appropriate sum established by the Commission and that sum is actually expended on Public Benefits activities, the utility's obligation to meet the customer-side energy efficiency requirements of the Energy Priorities Law will be satisfied. However, there is

not agreement among the Task Force members whether a utility that collects and makes available the appropriate sum for Public Benefits would satisfy the Energy Priorities Law if some of the funds are diverted for non-Public Benefits purposes. We believe that this emphasizes the importance of making future Public Benefits funds secure from diversion.

We recommend the following role for the DOA under this new framework:

1. The DOA should continue to serve as overall administrator of the statewide energy-efficiency and low-income programs as set forth in Act 9.

The DOA should also act as a prime facilitator with the Program Administrators for the following activities:

- Activities relating to the core functions of DOA itself or other state agencies {e.g. economic development (DOA or Dept. of Commerce); agriculture (Dept. of Ag. Trade and Consumer Protection); training programs such as green building inspectors (Dept. of Workforce Development)}
- Activities involving local units of government (cities, counties, school districts, etc.).

This coordination role would consist of working with the program administrators to facilitate state and local government programs, and to identify and direct potential program participants with respect to issues such as improved environmental compliance or improved economic development.

2. Programs that are determined by the PSCW to be most efficiently provided on a statewide basis {such as low-income, residential, small commercial/farm customers, and potentially certain aspects of the larger commercial (including institutional and agricultural) and industrial sector} should continue to be administered by third-party program administrators with DOA as the overall administrator. Statewide programs allow the capture of economies of scale, provide equity among customers, avoid conflicting programs and administrative structures that can create confusion for customers and market providers, and allow efforts with market providers such as manufacturers, distributors, retailers and contractors to increase the level of energy efficiency in the marketplace. However, after the PSCW has identified appropriate statewide efforts, an individual utility may propose to administer a larger customer commercial and/or industrial program in its service territory and to retain some of its Public Benefits funds for that effort. This would be accomplished by filing a request with the PSCW describing the program(s), proposing why such a program is appropriate and requesting that a set amount of the utility's commercial and industrial Public Benefits funding requirement be retained for such purpose. The PSCW would establish criteria to decide such requests. However, while



a utility may use its own personnel to facilitate such efforts and to provide financing approved by the PSCW, the utility would not be allowed to use retained Public Benefits funds to provide equipment and/or services to customers except through third-party market providers in a non-discriminatory manner.

3. To increase administrative efficiency so that the most dollars are available for program efforts, program administrators would be subject to performance-type contracts with both quantitative and qualitative targets and objectives. The program administrators would be provided appropriate latitude and flexibility to achieve these objectives, but be held strictly accountable for achieving specific, assessable savings/benefits and performance objectives. This same approach would be adopted for a utility allowed to retain some funds to administer a retained larger customer program in its service territory.
4. All Public Benefits-funded program efforts would be subject to the same independent third-party measurement and evaluation (M&E) requirements. We recommend that the independent M&E responsibilities currently at DOA be transferred to the PSCW to complement our recommended change in the Public Benefits framework. This requirement is also an important element of our objective to provide accountability and transparency about Public Benefits efforts to the public. Having the PSCW oversee the third-party independent M&E activity will also eliminate concerns that may arise by having one state agency supervising the evaluation of some of its own actions.
5. The duties and responsibilities of the DOA as overall administrator and facilitator should be more specifically defined in a PSCW/DOA interagency coordinating agreement. This agreement should provide clear and transparent criteria for DOA as facilitator and for independent third-party measurement and evaluation of DOA's role as overall administrator. We do not recommend modifying Act 9 so as to allow DOA itself to make grants directly to customers.

While our recommendations increase the role for the PSCW in Public Benefits, they by no means diminish the importance of the need for the overall administrator to oversee specific methods by which the desired public benefits objectives are accomplished.

Our review has indicated that Act 9 incorporated important policies and objectives that have proven to be significant contributors to successful energy-efficiency efforts (especially the move to statewide programs in certain markets and an emphasis on developing and operating programs with market providers such as retailers, contractors and distributors/manufacturers). However, while the Task Force would retain the best of the “lessons learned” from the implementation of Act 9 (see discussion below), we conclude that there should be meaningful modifications made to Act 9 to improve Public Benefits and

other energy-efficiency initiatives as well as to better integrate Public Benefits with statewide energy-resource efforts including the Public Service Commission's implementation of its obligations under the Energy Priorities Law.

Proposed Elements of Act 9 to Remain Unchanged

Unless a specific recommended change would require the modification of a provision of the existing Act 9, our recommendations do not expressly affect other sections of the current law. However, to ensure that these proposed recommendations are understood in the appropriate context, this section describes the primary elements of Act 9 that are not affected by our recommendations. These primary elements include:

1. The retention of the statutory priority areas set forth in s. 16.957(2)(b)1.a. that make clear that the Public Benefits initiative concerns a broader range of public interests and objectives than just the capture of resource benefits to defer or mitigate the need for additional energy supply. The targets, goals and objectives for Public Benefits efforts should continue to encompass this broader range of "public benefits".
2. The importance of reinvigorating the Advisory Council to the Department of Administration (DOA) to provide both input for and external oversight of Public Benefits efforts. This group or its members would also be valuable contributors to PSCW efforts.
3. The continued and important role of DOA as the overall administrator to facilitate the development and implementation of processes and programs that will maximize the broader Public Benefits goals and objectives set forth by the PSCW. These efforts include retaining effective program administrators, providing efficient administrative oversight of Public Benefits efforts, and making important allocations such as prospective budgets for various program efforts.
4. The continuation of DOA's role as the overall administrator for low-income Public Benefits efforts, as well as continued environmental R&D and customer-side renewable energy initiatives.
5. Utilities should continue to provide energy efficiency and renewable energy information to customers and to promote Public Benefits efforts.
6. The current ability of municipal utilities and cooperatives to operate and administer their own Public Benefits programs.



Suggested Timeframe for Implementing the Proposed Framework

The Task Force views these recommendations as an integrated package. For example, the increased integration between Public Benefits and compliance with the Energy Priorities Law cannot occur without adequate and secure funding. Similarly, it is unlikely that there will be widespread support for increased Public Benefits funding levels unless the program is better integrated with overall energy resource decision-making. Also, the move to customer-based funding equity is appropriate to better ensure that the overall value for customers across the state better matches the costs. In addition, without the guidance of Commission-established statewide energy-efficiency targets, reasonable and adequate funding budgets cannot be determined and valuable public benefits cannot be satisfactorily attained.

However, this package of recommendations, while certainly able to be part of the upcoming state budget, cannot be effective immediately. For example, energy potential studies, even once their contents have been agreed upon, typically take six-nine months to complete (given the need to update the last studies from 1994, this later timeframe is probably a more realistic estimate). Once these studies are available, there would need to be a public hearing held by the PSCW at which achievable potential among other factors would be developed as a basis for setting ongoing budgets and establishing savings and other targets and objectives. This public proceeding, given experience with similar proceedings at the PSCW, could take between six months to a year between notice and final order. Thus, we believe that even with constant attention, it is likely to take 1-1/2 to 2 years to put in place our revised package.

Impact to Public Benefits Low Income Program

The Task Force primarily focused on the non-low income program elements of Act 9. We have done so because there has been consensus that the low-income portion of Act 9 has been working well and should not be changed (a view endorsed by low-income advocates). Therefore, we recommend that the current framework for funding and administering low-income programs in Act 9 not be fundamentally revised.

In Summary

Our recommendations are intended to improve the Public Benefits program through a more integrated statewide energy-efficiency effort, improved administrative efficiency, establishment of aggressive savings and performance targets and objectives, and increased public transparency and accountability. But, most importantly, our recommendations are a longer-term view on what must be done to ensure that Public Benefits is an effective element in Wisconsin's overall energy resource framework. For Public Benefits to fulfill its substantial promise, it must receive adequate, secure funds in order to realize the benefits from investing in energy-efficiency efforts. Such efforts would help reduce the adverse economic, environmental and social impacts from meeting our expanding energy-supply needs through building new infrastructure. We unanimously and strongly believe that consistently devoting adequate funding to energy efficiency promotes the public interest of Wisconsin's citizens and businesses.



CHAPTER 3

Other Energy Efficiency Recommendations

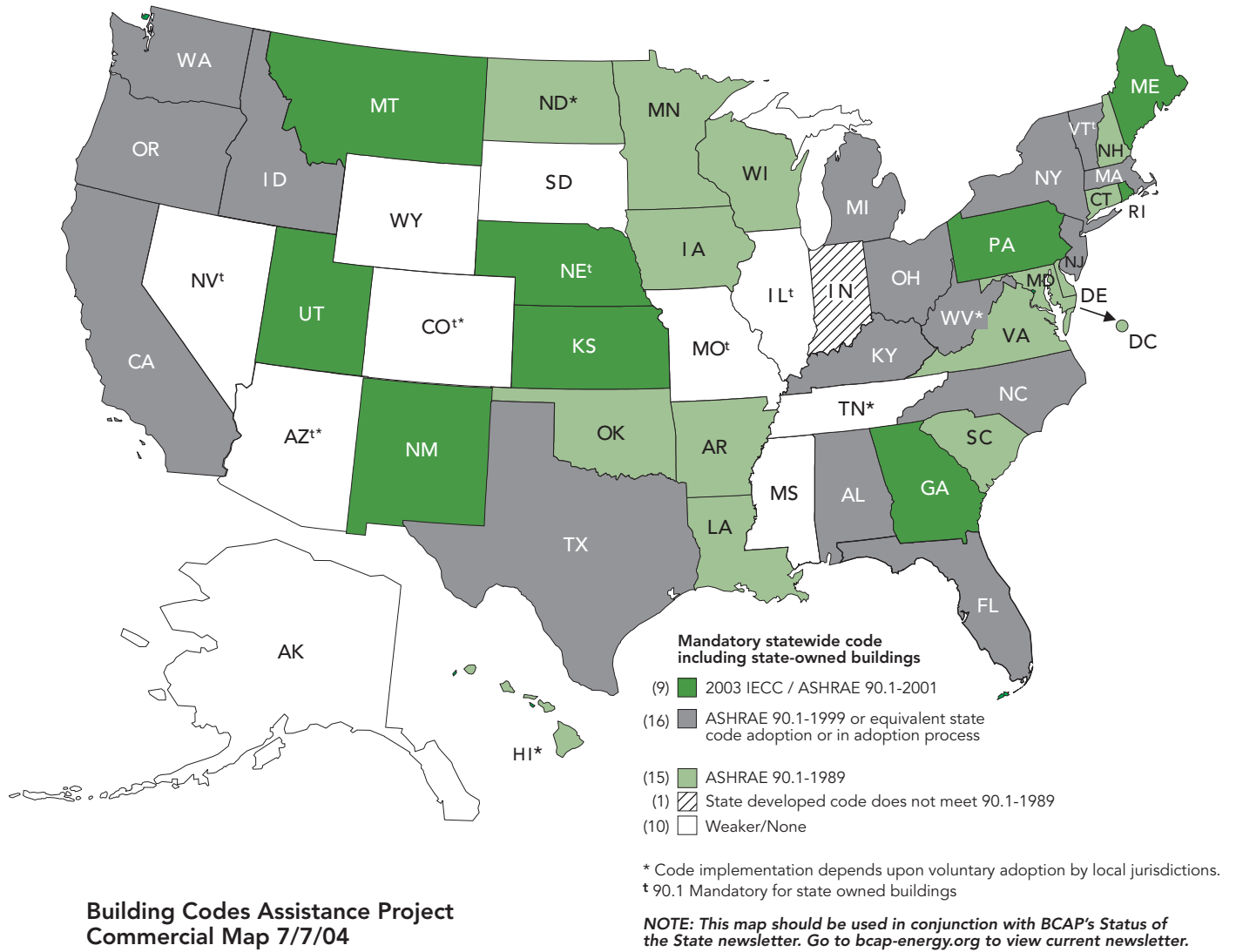
In addition to the Public Benefits program, the Task Force also reviewed other energy-efficiency opportunities for the state, including energy building codes and rural energy initiatives. The Task Force viewed building codes and standards initiatives as an objective means to increase energy efficiency in the state. The Task Force also sought to ensure that state codes and standards are keeping pace with technological advances. As for rural initiatives, most of the municipal and cooperative electric providers in the state do not participate in Public Benefits but rather offer their own energy-efficiency programs. The Task Force sought to facilitate communication between the statewide program and the independent programs in order to encourage information-sharing and the transfer of knowledge.

Recommendations on Building Codes and Standards

1. **Building Code Update:** The Task Force recommends that the Governor direct the Department of Commerce to start revision of the commercial energy code, COMM chapter 63, immediately and submit its proposed final changes to the Legislature no later than September 1, 2006. Current commercial energy codes have lagged behind national standards; a review is needed so that Wisconsin can achieve these new standards where appropriate.
2. **Adopt Current IECC:** The Task Force recommends that the statutory requirement for updating commercial energy codes, Wis. Stat. 101.27, be revised to reference the International Energy Conservation Code (IECC). Currently, this statute references the ASHRAE Standard 90.1-1989, which has become obsolete. Wisconsin is in the process of incorporating IECC standards into its building code, placing it among a handful of states adopting this stronger standard (see figure #7). This recommendation will firmly implant this stronger standard into state law.
3. **3-Year Code Cycle:** The Task Force also recommends that Wis. Stat. 101.27 be changed to require the Wisconsin Department of Commerce to review the state's commercial energy conservation code on a 3-year rather than the current 5-year cycle. The IECC update cycle is every three years; this change will synchronize Wisconsin's review with the IECC cycle. Wisconsin's review should occur within a specified time period after the release of a new version of the IECC.



FIGURE #7: Commercial Energy Codes Status As of July 2004



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4. **Energy-Efficient State Buildings:** The Task Force recommends that the Governor direct the Department of Administration (DOA) to establish a “beyond code” energy-efficiency policy for new and existing state facilities, both purchased and leased. This policy should be established either as a goal or requirement by the Governor. For construction of new state-owned or leased facilities, this policy should direct the DOA to procure buildings that are designed and built with at least 20% more energy efficiency than the current state energy conservation code for similar buildings. For existing state-owned and leased buildings, this policy should establish specific goals or requirements to achieve substantial cost-effective, independently verified reductions in energy usage in such buildings with the goal of reducing energy use in such buildings by a significant percentage over the next five years. Keeping in mind that the state energy conservation code is the minimum allowable standard for non-residential buildings in Wisconsin, the Task Force recommends these policies as a way for the state to show leadership in the construction and operation of cost-effective, energy-efficient facilities.
 5. **State Purchased Appliance Standards:** The Task Force recommends that the Governor direct all state agencies (including Wisconsin’s Housing and Economic Development Authority), whenever practical, to purchase or lease products and appliances that are certified as energy efficient by nationally recognized programs such as ENERGY STAR. The Wisconsin Division of Energy can assist with identifying those products with nationally recognized standards. This recommendation, like the previous recommendation, is designed to make Wisconsin a leader by example in purchasing high-efficiency products. Not only are these two recommendations good public policy from an environmental and energy saving standpoint, they are also good fiscal policy in that they will save taxpayers money in the long run through lower utility bills.
 6. **Uniform Dwelling Code Building Inspectors:** The Task Force recommends a pilot project for contractors who have been building all of their homes to meet above-code Wisconsin ENERGY STAR standards. This pilot would allow this select group of contractors to seek an alternative method of Uniform Dwelling Code (UDC) inspection. Builders would be authorized to hire a state-certified code enforcement inspector who would be available during the construction process to offer advice on energy-efficiency and all UDC-related practices and ultimately determine code compliance. This would give the inspector a proactive role during construction and facilitate greater adoption of energy-efficiency practices. Currently, code inspectors are involved only at the end of the construction process to approve minimum standard installations.



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7. **Rental Property Energy Inspections:** The Task Force supports the creation of a pilot program that would give rental building owners an alternative method for meeting the requirements of Wis. Stat. 101.122. This statute requires building owners to seek a state-certified rental weatherization inspection upon the sale of rental property. This pilot would grant a waiver from this inspection if the building in question complies with energy-efficiency requirements under Focus on Energy's Apartment and Condo Efficiency Services and Home Performance with ENERGY STAR programs. This will reduce fees and inconvenience for building owners who participate in the program and encourage greater participation in the program for those not already involved.
 8. **Endorse EBCC Proposals:** The Task Force recommends that the Department of Commerce include the following two building code proposals recommended by the We Energies' Energy Building Code Collaborative in the state commercial energy conservation code update:
 - a. *Building Envelope:* Require windows to have a winter center-of-glass U-factor of .40 or less and SHGC (solar heat gain coefficient) of .50 or less. Eliminate the ACP method of calculating energy efficiency.
 - b. *Lighting Power:* Eliminate s. Comm 63.1048, Wis. Admin. Code, the area category method of calculating lighting densities, and establish maximum lighting unit power densities using ASHRAE Standard 90.1 Tables 9.3.1.1 and 9.3.1.2.
 9. **PSCW Enforcement of Building Codes:** The Task Force recommends that the PSCW work with the Department of Commerce's Division of Safety and Buildings and the Department of Administration's Division of Energy to rewrite or transfer to another agency the PSCW regulations regarding home heating conversion to natural gas space-heating or to an electric space-heating system (Wis. Admin. Code 136.04 and 136.06). The PSCW has rules that regulate these conversions but no staff or funds dedicated to enforcement. This is an area that is better covered by an agency responsible for overall energy building codes.
 10. **Energy Efficiency Recognition Award:** Wis. Stat. 14.165 authorizes the Governor to recognize Wisconsin organizations for outstanding accomplishments in energy efficiency or renewable energy systems. However, this program has fallen out of use. The Task Force encourages the Governor to reinvigorate this program to promote and publicize those "beyond code" advancements in energy efficiency that would otherwise go unnoticed by the general public and potential users of new techniques and technologies.

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11. **Ventilation Standards for Super Insulated Homes:** The Task Force recommends that the Uniform Dwelling Code Council review issues related to Wis. Stats. 101.63 and 101.73. These statutes require greater insulation for electrically heated new homes. The Task Force also recommends a review of the related issues of air sealing requirements and ventilation. Any time a home is super-insulated to save energy, as electrically heated homes are required to do, it is important to review these issues of venting, air circulation and air sealing.
 12. **Energy-Efficiency Standards for Appliances not Regulated by Federal Standards:** The Task Force recommends that the state consider establishing energy-efficiency standards for commercial and residential products that are not regulated by federal standards such as ENERGY STAR. The Appliance Standards Awareness Project, which is affiliated with the American Council for an Energy-Efficient Economy, has developed model standards that could be adapted to Wisconsin's circumstances (www.standardsasap.org). Members of the Task Force, including environmental and business representatives, made substantial progress on this issue, but were not able to develop a specific consensus proposal in time to be included in this Report.

Rural Energy Initiatives

As discussed in the previous chapter, Public Benefits is the statewide energy-efficiency program in which customers of the state's investor-owned utilities participate. Municipal and rural energy cooperative electric providers are not required to participate in this program. Many have opted to provide their own Commitment to Community programs because they are membership-owned or publicly owned and locally governed. Currently few municipals and no cooperatives participate in the Public Benefits program. This leaves much of rural Wisconsin ineligible for Public Benefits assistance and expertise (see figure #8).

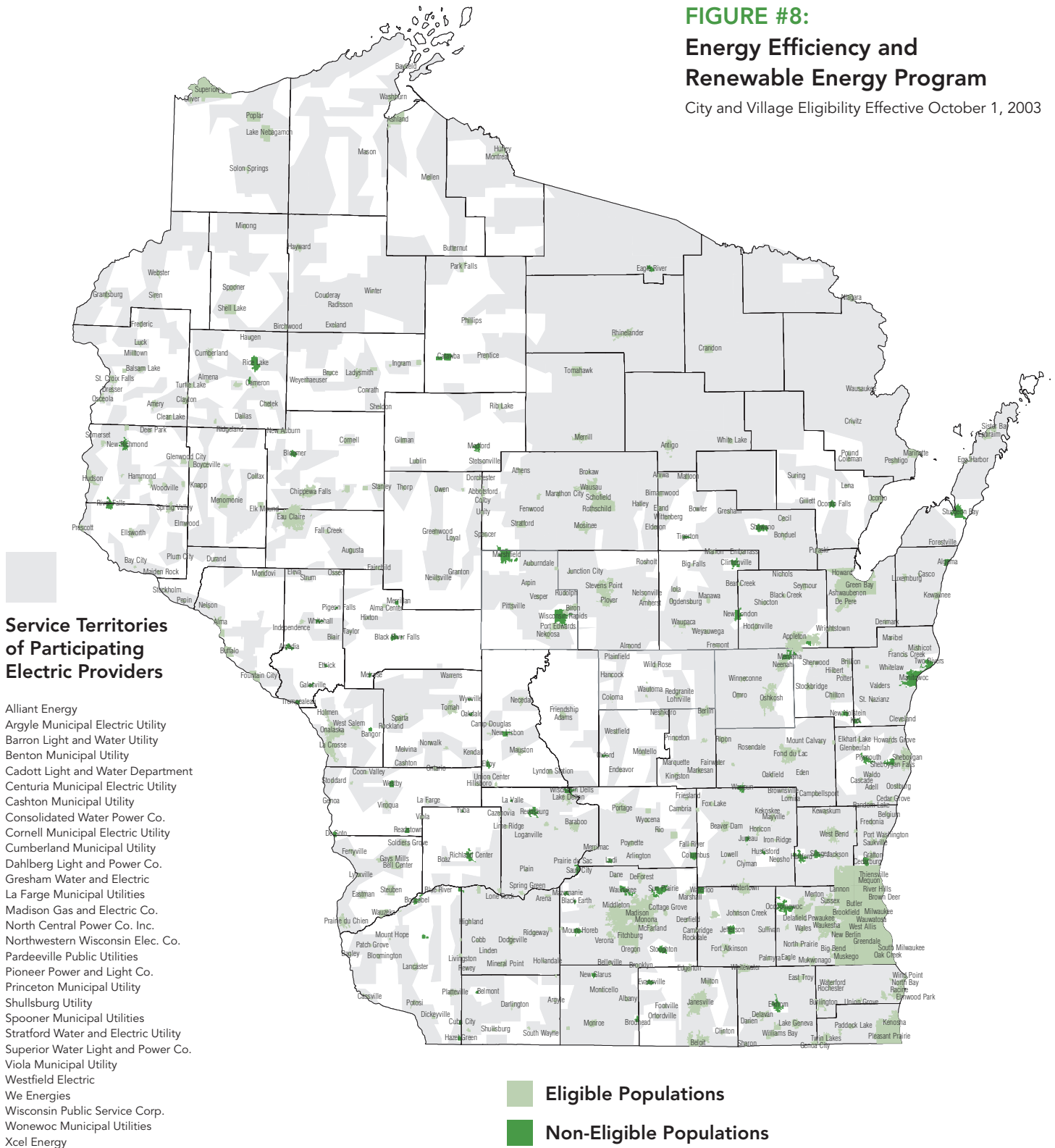
While recognizing the need to maintain local control among municipals and rural energy cooperatives, the Task Force recommends as a goal to encourage better communication and cooperation among the Public Benefits administrators, cooperative and municipal leaders and Department of Agriculture, Trade and Consumer Protection representatives, in order to better leverage energy-efficiency innovations and to increase the sharing of information.



FIGURE #8:

Energy Efficiency and Renewable Energy Program

City and Village Eligibility Effective October 1, 2003



CHAPTER 4

The Renewable Portfolio Standard

The Energy Priorities Law establishes technically feasible, cost-effective renewables such as wind, biomass and solar power as the state's second energy priority. Like energy efficiency, renewables are integral to a least-cost, optimal mix of energy resources in the state. Renewables currently represent approximately 4% of the state's total energy use. Much of this 4% comes from hydropower facilities; however, given the Upper Midwest's potential for wind and its increasing cost competitiveness, wind power has strong promise for Wisconsin in the near future (see figure #9). Wind, like other renewable resources, has the added economic benefit of being an in-state resource, keeping dollars in the state that would otherwise go to coal or natural gas purchases from out-of-state. Most importantly, wind and other renewable resources do not burn fossil fuels, and thus avoid the air and water pollution caused by these fuels.

As the Task Force reviewed the state's application of the Energy Priorities Law, it became clear that many of the same questions that have been asked about the state's energy-efficiency efforts also apply to the state's policy on renewable energy. In addition to the Energy Priorities Law, the state's renewable energy policy is also guided by Wis. Stat. 196.378, the law that established Wisconsin's renewable portfolio standard (RPS). This law currently requires the state's electric providers to provide 2.2% of their electricity from renewable resources by 2011. This law has never been integrated with either the PSCW's case-by-case decisions on renewables, or with the Energy Priorities Law. This has caused confusion for the state's electric providers and frustration for the state's environmental organizations as both groups struggled to apply the Energy Priorities Law in individual cases. Integrating these laws and implementing a policy that spurs the development of new renewable-based generation became a principal focus of the Task Force.

A Successor Renewable Portfolio Standard

The Task Force recommends that the state adopt a new renewable energy standard to increase the state's use of renewable energy to 10% by 2015. Integral to this recommendation is that, in conjunction with a higher standard, electricity providers be deemed in compliance with the Energy Priorities Law, thus integrating Wisconsin's renewable portfolio standard with the Energy Priorities Law. The Task Force also recommends that certain allowances for temporary implementation delays beyond an electric provider's control be incorporated into this new standard. This package of recommendations offers a reasonable approach to fulfill the intent of the Energy Priorities Law.



FIGURE #9: Proposed Windpower Projects in Wisconsin as of September 2004

Town/County	Developer	Utility	MW	Turbine type	Permit	PPA	Comments
Marshfield/ Fond du Lac Co	Navitas Energy	We Energies	80	Gamesa 1.8 MW	Yes	Yes	Awaiting PTC* reauthorization
Calumet/ Fond du Lac Co.	Navitas Energy	We Energies	80	Gamesa 1.8 MW	Yes	Yes	Awaiting PTC reauthorization
Herman/Dodge Co.	Midwest Wind	We Energies	54	NEG Micon 1.65 MW	Yes	Yes	Negotiating over airport and bat issues
Seymour/ Lafayette Co.	Zilkha Renewable Energy	None	99	NEG Micon 1.65 MW	Yes	No	Looking for utility purchaser
Eden/ Fond du Lac Co.	Eden Wind Energy, LLC	We Energies	3	NEG Micon 1.65 MW	Yes	Yes	Awaiting PTC reauthorization
Addison/ Washington Co.	Addison Wind Energy, LLC	We Energies	1.65	NEG Micon 1.65 MW	Yes	Yes	Awaiting PTC reauthorization
Fond du Lac & Dodge Cos.	Invenergy	MG&E (40 MW), WPPI (20 MW), WPS (70 MW)	130	Unknown	No	Yes	Application for CPCN—triggering PSC review authority --will be filed
Ashford/ Fond du Lac	Eden Wind Energy, LLC	We Energies	3	NEG Micon 1.65 MW	Yes	Yes	Awaiting PTC reauthorization

Nearly 450 MW of wind projects are currently under development in Wisconsin

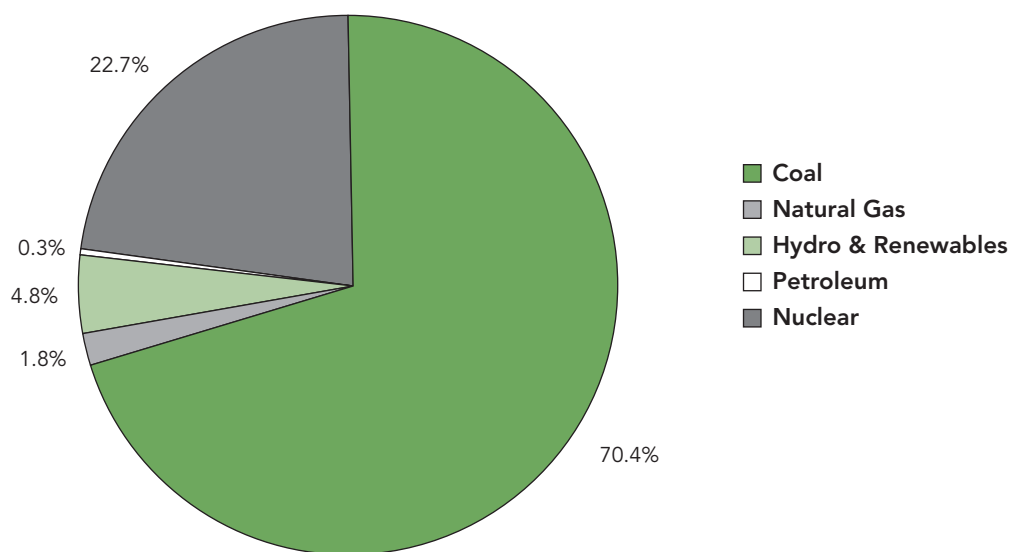
* Refers to the Federal Production Tax Credit. The President recently signed a PTC reauthorization bill.

The specific elements of the recommendation are described below:

1. All qualifying renewable-based generation (including hydroelectric power under 60 MW of generation capacity) that is owned by or under a contract to a Wisconsin utility should be counted toward a new renewable standard regardless of age or type of resource, as long as that electricity replaces fossil-based electricity used to serve Wisconsin load.
2. If the Wisconsin utility is part of an interconnected multi-state system that serves Wisconsin and other states, the policies above would apply to renewable-based generation within the footprint of the utility's interconnected system, not just generation located in Wisconsin. The same policies would also apply to qualifying renewable generation located outside of Wisconsin that is owned by or under contract to a Wisconsin utility. In both instances, the generation source may not also be used to qualify toward a renewable portfolio standard of another state, i.e. no double counting.
3. The Task Force recommends that a new standard be enacted in legislation. The PSCW would oversee utility compliance with a new standard; for utilities not regulated by the PSCW, such as the co-ops, compliance would be enforced through civil proceedings as under the current process.
4. The Task Force supports a new statewide renewable standard of 10% of total retail electric sales from renewables by 2015, which will remain the base standard in subsequent years. The Task Force has determined that current renewable sales statewide are at 4% of total retail electric sales (see figure #10).
5. To achieve the new statewide standard, all electric providers will be required to increase their own renewable electricity sales by a total of 6% by 2015. This includes a 2% increase by 2010 and an additional 4% increase by 2015, resulting in a statewide average of 10% renewable energy by 2015. The beginning date is 2004. The increase is phased-in to allow for transmission infrastructure development (see figures #11 and 12).
6. Electric providers will submit implementation plans, either as a part of the Strategic Energy Assessment proceeding or in a special docket designed to facilitate compliance with the Energy Priorities Law.



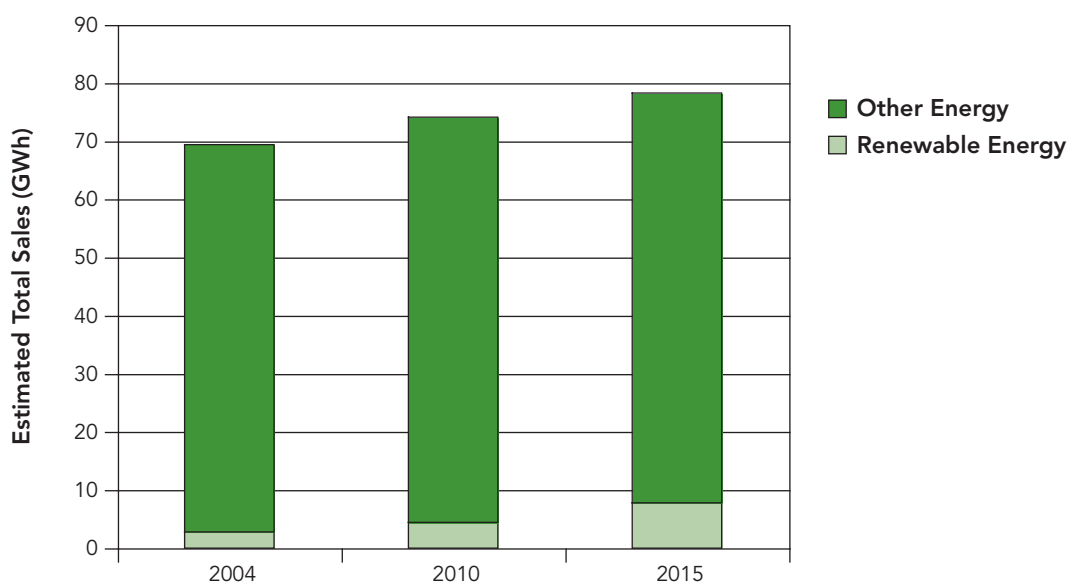
FIGURE #10: Wisconsin Electric Generation by Fuel Source - 2002 (GWh)



Source: PSCW Draft Strategic Energy Assessment - Energy 2010, April 15, 2004.

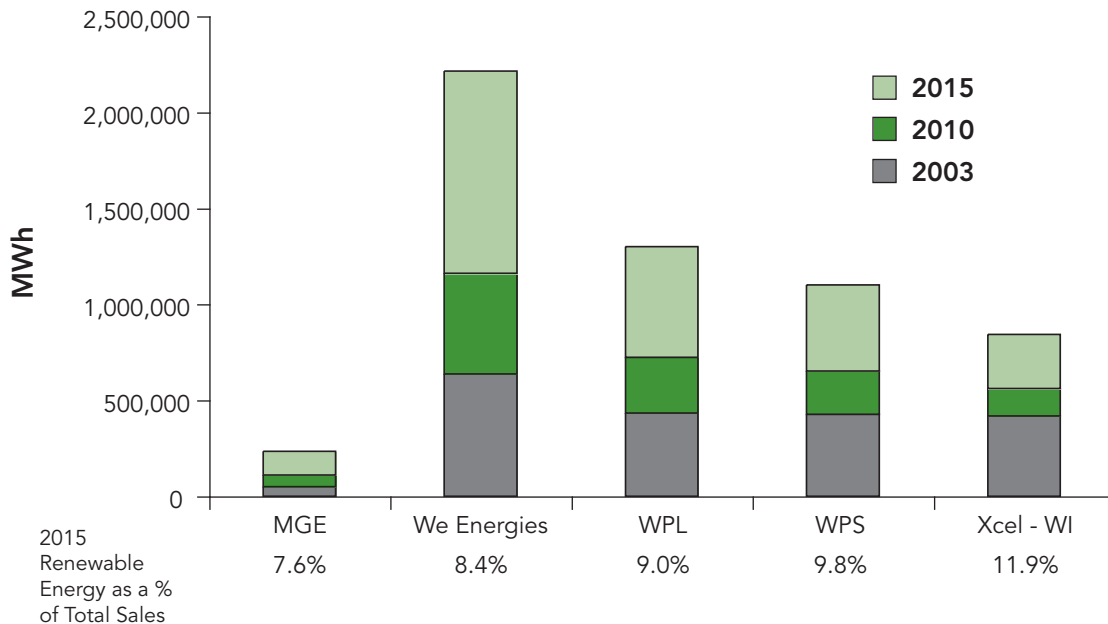
Note: This figure includes Wisconsin-based generation, but does not reflect imported or exported power. The amount of renewable energy sales to Wisconsin customers calculated by the Task Force varies slightly from this figure due to the allocation method used by multi-state utilities to determine the amount of renewable-based energy sales in Wisconsin.

FIGURE #11: Projected Annual Sales of Renewable Energy Under a 10% Standard by 2015



Source: Governor's Energy Task Force - Renewables Workgroup

FIGURE #12: Projected Annual Utility Sales of Renewable Energy Under a 10% Standard by 2015



Source: Governor's Energy Task Force - Renewables Workgroup

Assumptions:

1. Since hydroelectric generation output fluctuates depending on annual rainfall amounts, a three-year average from 2001 through 2003 was used to establish current and projected hydroelectric energy sales.
2. Pursuant to Recommendations 1 and 2, all qualifying renewable-based generation facilities (including hydroelectric facilities under 60 MW of capacity) were used to establish the current and projected renewable energy sales, regardless of whether the facilities were owned or under contract or whether they were in-state or out-of-state.
3. All green pricing program resources are included.

7. Delays in reaching the new standard may arise owing to circumstances beyond a utility's control. Electric providers may seek an implementation delay for the 2010 and/or 2015 requirements if they can demonstrate:

- undesirable impacts on the reliability of the provider's system;
- undesirable economic impacts on the provider's ratepayers, including those arising from a discontinuation of federal renewable energy tax credits or successor policies intended to reduce the acquisition costs of renewable electricity;
- delays in receiving required siting or permitting approvals; and
- transmission constraints that interfere with the deliverability of renewable electricity to the provider's system.



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8. The new standard will constitute fulfillment of the Energy Priorities Law under 196.025 as it pertains to renewable resources. This will be stated in any legislation enacting a new standard. Provider compliance is defined as either meeting the standard or demonstrating that the standard could not be met due to circumstances beyond the provider's control. The PSCW should be given the authority to determine what constitutes a reasonable delay.
 9. Consistent with current procedure, providers should report their progress toward achieving a new standard to the PSCW annually. This applies to all providers whether or not they are subject to PSCW oversight.
 10. Credits should have a 4-year lifespan as measured by the calendar year or be consistent with the lifespan of credits created under a regional trading program. Generators placed in service after Jan. 1, 2004 can be certified for credits. For generators placed in service prior to Jan. 1, 2004, only the incremental output from capacity improvements made after Jan. 1, 2004 are eligible for credits under the new standard. The details to track the lifespan will need to be worked out in the rule-making process, particularly whether the life of credits will be tied to the day of creation or tracked through inventory accounting.
 11. Purchases from hydro facilities with greater than 60 MW of generation capacity will not count toward this new standard.
 12. Existing law regarding cost recovery of renewable energy acquisition should continue through the next mandated period (i.e. renewable energy acquired to comply with the new standard may either be rate-based or sold through a green pricing program). This policy should also apply to any state purchases of renewable electricity.
 13. Credits created under the current RPS law should expire at the end of 2011. The current RPS law may need to be amended to reflect this.
 14. The PSCW's current policy combining renewable energy credits and other environmental attributes should continue.
 15. The definition of biomass resources under the current RPS law will need adjustment to remove the "in-state" reference.
 16. Resources created through earlier Wisconsin mandates should count toward a new Wisconsin standard.
 17. Resources mandated in other states should count toward a new Wisconsin standard as long as there is no double counting.

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18. All- and partial-requirements wholesale customers of Wisconsin electric providers are entitled to an allocation of renewable credits from their suppliers where the cost of renewable resources are included in wholesale rates.
 19. The Task Force supports allowing joint action agencies (e.g. WPPI, Dairyland Cooperative) to continue aggregating renewable energy on behalf of their members.

In Summary

This recommendation strives to clarify the state's policy toward renewable energy use and provide more regulatory certainty for the state's electric providers. It is a balanced approach that encourages the development of wind resources in-state while incorporating flexibility for unforeseen circumstances. Such a policy would help foster the state's economic growth, reduce Wisconsin's dependence on out-of-state energy sources, protect Wisconsin's natural resources and reduce the need for traditional fossil-fuel based plants. In short, it succeeds in fulfilling the goals set forth by the Governor in creating this Task Force.



CHAPTER 5

Other Renewable Energy Recommendations

In addition to the recommendation for a new renewable energy standard for Wisconsin, the Task Force also identified other initiatives to increase the state's use of renewable energy. These recommendations include targets for state-agency purchases of renewable energy, a sales and use tax exemption for small, privately-owned renewable systems, and initiatives to encourage bio-energy development in rural Wisconsin. These initiatives will have the twin benefits of stimulating Wisconsin's use of renewable energy and fostering local economic growth by promoting Wisconsin's "homegrown" renewable industry. Finally, the Task Force also sought to identify resources to assist local units of government in responding to renewable project proposals. The Task Force's specific recommendations are described below.

Recommendations to Increase the State's Use and Support of Renewable Energy

1. **State Purchases of Renewable Energy:** State-owned facilities spend nearly \$55 million⁵ annually on electric bills; this amounted to approximately 4% of the electricity sold to the entire commercial sector in the state in 2003. Like the private sector, the state's use of electricity has intensified as more computers and electronics have been added to the workplace (see figure #13). Yet despite the state's significant purchases of energy, no specific standard, beyond that of the Energy Priorities Law, guides its use of renewable energy.

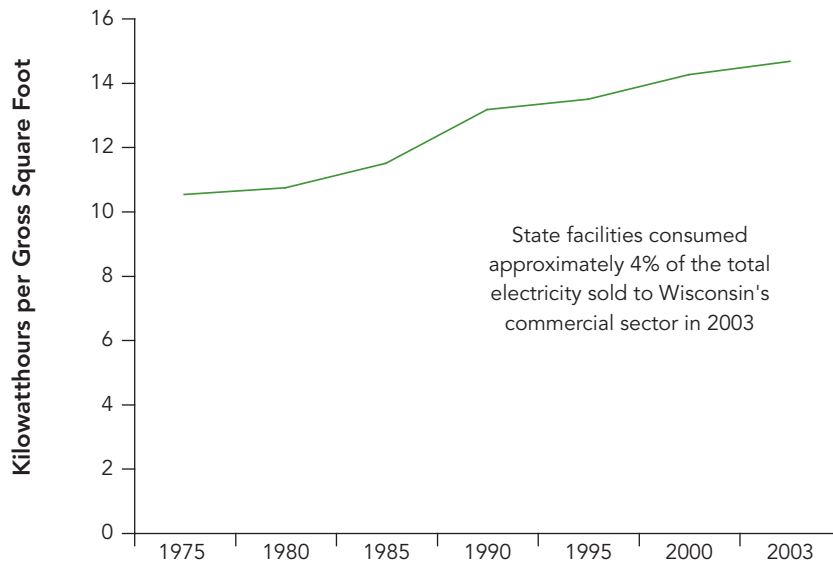
The Task Force recommends action to encourage the state to purchase at least 10% of its energy from renewable resources by 2006 and at least 20% from renewable resources by 2010. Legislation to this effect was introduced in the 2003-2004 legislative session as Assembly Bill 977 and Senate Bill 554 based on the Task Force's initial recommendation. In this final report, the Task Force recommends several refinements to this proposed legislation (for a draft of the proposed legislation see Appendix 2). The impact of this initiative on the state's electric bills depends upon which, if any, price premium one assumes for renewable energy. The Task Force notes that, if the federal production tax credit is not extended, this recommendation may need to be reconsidered in light of a revised economic analysis.⁶

⁵ DOA Division of State Facilities. *Energy-Use in State Owned Facilities*. FY 2003, pg. 42.

⁶ The Task Force also requests that the Legislative Council review this proposed legislation for potential conflicts with statutes requiring DOA to make cost-effective purchases.



FIGURE #13: Electricity Use in State Owned Buildings



Source: 2003 Wisconsin Energy Statistics, 2004 Preliminary Wisconsin Energy Statistics

The Task Force believes that state leadership in the increased use of renewable energy would have a positive impact on the demand for renewable-energy resources in the state. As noted above in Chapter 4, renewable-energy usage also has definite economic-development and environmental-protection advantages as well. In addition, if renewable energy can be procured at fixed rates, any estimated premium for green power may diminish or disappear entirely given the volatility of fossil-fuel prices.

- 2. Sales Tax and Use Tax Exemption for Renewable Energy Systems:** The Task Force recommends legislation to exempt small-scale renewable systems from the sales and use tax. This legislation was introduced in the 2003-2004 legislative session as Assembly Bill 762 at the request of the Task Force. Systems eligible for this exemption include home solar panels, a small wind turbine on a farm or a third-party solar water-heating service, among others. The Task Force also recommends an amendment to AB 762 to include solar water-heating for commercial and industrial uses. These exemptions will encourage the use of small renewable systems by reducing the upfront equipment costs for consumers. The exemptions do not include utility-scale projects and would have a minimal impact on the state's budget.

3. **Rural Energy Initiatives:** The Task Force recommends three initiatives to foster renewable energy use in rural areas:

- *Bio-Energy/Bio-Fuel Coordinator.* Currently, there is no post at the Department of Agriculture, Trade and Consumer Protection (DATCP) that is responsible for coordinating federal and state programs for renewable energy projects related to agriculture. Given agriculture's compatibility with renewable energy systems, the Task Force recommends the creation of a bio-energy/bio-fuel coordinator position at DATCP to better leverage federal and state programs and funding sources for rural renewable projects. Identifying the need for loan guarantees for waste and odor mitigation projects could also be a part of this coordinator's function. Funding for the position could be provided, in part, by the private sector with a matching grant from the state.
- *Funding for Anaerobic Digester Research and On-Farm Application.* Given Wisconsin's numerous dairy farms, anaerobic digestors are a renewable technology with strong potential for the state. However, questions about technology and economic feasibility remain barriers to the widespread use of digestors. The Task Force recommends increasing funding of two DATCP programs to foster research and development of digestors.

The first program is the Agricultural Development and Diversification (ADD) Grant Program. This program awards grants on a competitive basis to new technologies, research and development projects, and feasibility studies for farmland resources. The Task Force recommends setting aside funds in this program for anaerobic digestors. This will require a statutory change giving DATCP the authority to use these funds specifically for digester research and development.

The second program is the Wisconsin Agricultural Stewardship Initiative (WASI). This is a non-profit organization established to coordinate and guide the application of technologies developed on DATCP pilot farms. The Task Force recommends increasing funding to these pilot farms for the research and development of digestors.



Model Ordinance and Reference Guide for Local Units of Government

One of the potential barriers to the siting of renewable projects is the unfamiliarity of local officials with such projects. To assist local officials in properly reviewing such projects, the Task Force supports the development of a model renewables ordinance and reference guide for Wisconsin. This would be a valuable planning tool for such officials, assisting them in their review of proposed renewable projects in their municipalities.

A draft model wind ordinance and reference guide has been developed by PSCW and DOA staff. The Task Force encourages regional planning agencies; city, county and town associations; and other interested stakeholders (including those proposing such projects) to review this document and suggest modifications where needed. The goal of this input is to produce an effective, consensus ordinance and reference guide.

When this process is completed, we urge the PSCW and DOA to establish a process for formal input, to endorse a model windpower ordinance and reference guide, and to post these documents on their websites.

CHAPTER 6

Conclusion

Governor Doyle set the bar high for this Task Force when he said in his executive order that our mission was to develop ideas which would “restore Wisconsin as a leader in energy efficiency and renewable energy sources.” This goal reflects Wisconsin’s proud tradition of leadership in innovative energy-efficiency and renewables programs. It also recognizes that recently Wisconsin has not had a clear, comprehensive policy regarding these two key energy resources.

The Task Force agrees that time is of the essence to seize the opportunity to improve the state’s policy on energy efficiency and renewables. We know that these resources have great potential, if intelligently implemented, to save customers money, to improve environmental protection in the electric industry, and to further economic development within the state.

If these recommendations are to become a reality, the Governor and the executive branch of state government, with its power to implement policy and manage the affairs of the state; the legislature, with its power to make laws and authorize expenditures; and the Public Service Commission, with its authority to regulate public utilities, will each have a key role to play.

Cooperation among these various branches of state government is indispensable to implementing these recommendations. Perhaps the experience of the Task Force can shed some light on how such cooperation might be achieved.

The members of this Task Force represent very diverse groups with often divergent interests and positions. The prospect that we would have agreed upon so many recommendations would probably not have been rated high when the Task Force began to meet. Yet consensus did occur. Why?

One reason is that circumstances are ripe for new policy initiatives on energy efficiency and renewables. There is unanimous recognition that more can be done to capture the value of these resources at this time, and in a more integrated, coordinated fashion. There is also consensus that piecemeal efforts are producing a lack of regulatory certainty with regard to these energy priorities. This can be rectified by linking increased, specifically defined efforts on energy efficiency and renewables to compliance with the Energy Priorities Law. In other words, these recommendations, especially those regarding the Public Benefits program and the Renewable Portfolio Standard, represent a package of interconnected proposals which the Task Force believes is in the public interest to enact together and to integrate with Energy Priorities Law compliance.



The second reason for the consensus is the spirit of compromise that pervaded the Task Force's discussions. While energy policy can certainly become divisive and contentious, this did not happen within the Task Force. Discussions and debates were based on relevant data, and the costs and benefits of various options. Common sense, creativity, and compromise produced the recommendations which this Task Force is making to the Governor, the Public Service Commission, and the legislature. We urge policymakers to approach the goal of increased energy efficiency and renewables in the same spirit, and we stand ready to assist them in any way we can to facilitate the implementation of these recommendations.

APPENDIX 1

Energy Efficiency Potential Study

As the Task Force reviewed Public Benefits and the state's approach to energy efficiency, it became clear that a new study was needed to assess Wisconsin's potential to save energy and use energy more efficiently. The Energy Center of Wisconsin was commissioned to conduct a study to provide an estimate of the range of potential electric and natural gas energy savings achievable by energy consumers through energy conservation, energy efficiency, and small-scale, customer-sited renewable resources. The results of this study are expected by June 30, 2005. The PSCW will use these results in the process outlined in Chapter 2 to set the appropriate targets and funding levels for Public Benefits and utility-administered programs and to satisfy the conditions of the Energy Priorities Law.

Study Methodology

The Energy Center will provide an estimate of the range of achievable electric and natural gas energy savings potential in Wisconsin, available on the consumer side of the utility meter through energy conservation, energy efficiency, fuel switching, and customer-owned and sited, small-scale renewable resources (combustible and non-combustible). Energy conservation covers reductions in customer usage, such as changes in thermostat settings that might be implemented through a program targeting O&M practices. Energy efficiency covers changes that allow the same or better functionality or production level at reduced energy requirement, for example, use of a new lighting technology that provides the same or increased lighting levels with lower energy usage. Fuel switching would be included where a net reduction of end-user energy consumption (Btu's) occurs.

The achievable potential energy savings will be quantified by aggregating estimates for savings from individual, distinct markets covering residential, agricultural, commercial, government, institutional, and industrial consumer segments. The study will estimate potential achievable energy savings on an annual basis over ten years, beginning in January 2006, with an emphasis on the energy savings potential in the first five years. The study will describe the savings potential in terms of annual kWh, annual therms (natural gas), and summer peak demand reduction, and provide a geographical breakdown of the results.



A market-oriented approach will focus the analysis on the supply-chain infrastructure and intervention strategies that need to be influenced in order to achieve the energy savings potential. The infrastructure may either be naturally occurring, such as residential heating and cooling contractors, or a proposed creation as part of an intervention strategy to capture specific markets, such as a retrofit service for small commercial customers. The study will delve into end-use and measure-specific detail to the extent needed or justified by availability of sound data. The study will include emerging technologies for which there is significant achievable potential within the study time horizon.

Individual markets will be defined by delivery infrastructure, timing of events, intervention strategy, or categories of energy users. The energy savings potential within a market may be based upon a single end-use measure, such as residential replacement gas furnaces, or a comprehensive package of integrated measures, such as in large commercial new construction. The Energy Center will work with an Advisory Committee to select an appropriate number of individual markets to analyze that will balance overall cost of the study with granularity of results.

To define achievable energy savings potential, the Energy Center will base savings and costs on intervention strategies that have been demonstrated within a market. It will collect information from sources including suppliers and experts in specific markets, conservation program managers, and market research studies. In some markets, such as some renewables, there is limited experience for achieving results, and the Energy Center will need to extrapolate results from the best efforts. The study will identify ranges to key assumptions when relevant, such as energy savings and cost, market size, and baseline efficiency, to acknowledge uncertainty in these values.

Results for individual markets will be aggregated in a manner to avoid double-counting, but still account for achievable potential within all usage of energy. Where multiple interventions could address the same energy savings opportunity, the Energy Center will examine alternative strategies for aggregating markets. Relative emphasis on individual markets allows modeling of different scenarios for achievement rate and cost of savings. For example, one could achieve substantial commercial lighting savings within five years through aggressively retrofitting existing buildings at high cost, or one could upgrade lighting efficiency at a slower, less costly pace at the time of naturally occurring remodels and renovation.

Advisory Committee

The study will be overseen by an Advisory Committee, appointed by the Task Force, that will have the following responsibilities:

- Work with the Energy Center to approve a final methodology, scope, and budget for the study;
- Assist the Energy Center by identifying sources of information when known;
- Participate in three Milestone Review Meetings at key stages in the study process, to comment on completed work and approve methodologies for next steps.

Working with the Advisory Committee, the Energy Center will also invite key stakeholders to provide input at each milestone review.



APPENDIX 2

Proposed Legislation Regarding State Purchases of Renewable Energy

1 SECTION 1. 16.75 (12) of the statutes is created to read:

2 16.75 (12) (a) In this subsection:

3 1. “Renewable resource” has the meaning given in s. 196.378 (1) (h) 1. or

4 2. and includes a resource, as defined in s. 196.378 (1) (j), that derives electricity
5 from hydroelectric power.

6 2. “Electric provider” has the meaning given under s. 196.378(1)(c).

7 3. “Office buildings” means buildings and institutions operated by the
8 department of administration, the department of natural resources, the
9 department of health and family services, the department of veterans affairs
10 and the state fair park.

11 4. “State correctional institution” has the meaning given under s. 301.01 (4).

12 5. “State educational institution” means the University of Wisconsin
13 System and the schools operated by the department of public instruction.

14 6. “Long-term arrangement” means a period of ten years or longer.

15 (b) The department shall determine the level of use, as of the effective
16 date of this paragraph [revisor inserts date], of renewable resources by all
17 users in this state.

18 (c) The department shall establish a target applicable to the department,
19 each purchasing agent under s. 16.71 (1), and each agency making purchases
20 under s. 16.74 for aggregate renewable resource usage at all state-owned and
21 state-leased office buildings, state educational institutions, and state correctional
22 institutions that will enable the department, its agents and the agencies, when
23 combining their level of use of renewable resources with the level of use
24 determined under par. (b), to attain the following levels:



25 1. By January 1, 2006, at least 10 percent of total use by the state.
26 2. By January 1, 2010, at least 20 percent of total use by the state.
27 (d) All buildings and institutions leased by the state after the date of enactment
28 of this legislation are subject to the target described in par. (c). Buildings and
29 institutions leased by the state prior to the date of enactment of this legislation
30 are subject to this target upon lease renewal.
31 (e) For purposes of par. (c), use of renewable resources at a building or
32 institution consists of energy derived from renewable resources purchased under
33 a long-term arrangement with the electric provider serving the building or
34 institution, or energy derived from renewable resources produced by the state
35 for the use of the building or institution, or a combination thereof.
36 (f) If insufficient renewable energy is available from the electric provider
37 serving buildings and institutions in a certain service territory, the department
38 may make up the difference by purchasing more renewable energy from
39 another electric provider serving buildings and institutions in another service
40 territory, such that the department on a statewide basis is able to meet the
41 target.
42 (g) No later than March 1 of each year, the department shall report to the
43 governor and chief clerk of each house of the legislature, for distribution to the
44 legislature under s. 13.172 (2), concerning the degree of attainment and, if
45 applicable, reasons for non-attainment by the state during the preceding year in
46 meeting the target established under par. (c).

(END)

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